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Priority Claim

Examiner points out that foreign priority has been claimed but that a certified copy of the priority document has not yet been submitted. A certified copy of the priority document has been filed on November 13, 2002, and should now be of record.

Rejection under 35 U.S.C. 102

Claims 1 and 2 stand rejected under 35 U.S.C. 102(b) as being anticipated by *Kobayashi et al.* (US 3,875,660).

The examiner argues that the cited prior art reference shows cutting a sheet metal web in the longitudinal direction to produce at least two sheet metal strips and separating the sheet metal strips in a direction transverse to the longitudinal direction of the sheet metal strip to form laminations. According to the examiner, this is shown in Fig. 6A at 130,140,150 and described in col. 1, lines 39-43.

Applicant respectfully disagrees. Lines 39-43 of col. 1 describe that the silicon steel plates have been cut into a given size from a hoop of silicon steel strip. From this disclosure it can only be taken that the different steel plates are cut from a continuous steel strip. However, there is no disclosure as to how the steel strip is produced. There is no mention whatsoever that the steel strip has been cut longitudinally from a wider steel strip. A steel strip can be produced as such with a finished width without necessitating cutting in the longitudinal direction. Therefore, the first step, i.e., cutting a sheet metal web in the longitudinal direction to produce at least two sheet metal strips is not disclosed in this prior art reference. In particular, it is not disclosed to cut sheet metal strips of a width matching the width of the laminations to be produced.

The prior art reference U.S. 3,875,660 only discloses to employ a sheet metal strip for producing the steel plates. Not even the arrangement of the steel plates relative to the steel strip from which they are cut is disclosed. The only reference in this respect is that the steel plates are cut to a given size. This does not even imply that a transverse cut is performed. This also does not imply that the steel strip has the same width as the steel plates cut therefrom. The steel plates could be cut in any possible arrangement from the steel strip material, in particular, because there are many different shapes of steel plates

disclosed.

The cited prior art reference therefore does not provide any suggestion or teaching in regard to cutting a sheet metal web in the longitudinal direction so as to produce at least two sheet metal strips which have a width matching the width of the laminations to be produced from the sheet metal strips in order to eliminate sheet metal waste of the sheet metal web.

Claim 1 and its dependent claims are therefore not anticipated by or obvious in view of the cited prior art reference.

Rejection under 35 U.S.C. 103

Claims 3-5 and 7-10 stand rejected under 35 U.S.C. 103(a) as being unpatentable over *Kobayashi et al.* (US 3,875,660).

As discussed above, the primary reference does not teach or suggest cutting a sheet metal web in the longitudinal direction to produce sheet metal strips of the same width as that of the laminations to be produced. The dependent claims should therefore be allowable also.

Claim 6 stands rejected under 35 U.S.C. 103 (a) as being unpatentable over *Kobayashi et al.* (US 3,875,660) in view of *Terry* (US 2,898,564).

As discussed above, the primary reference does not teach or suggest cutting a sheet metal web in the longitudinal direction to produce sheet metal strips of the same width as that of the laminations to be produced. The dependent claims should therefore be allowable also.

Claims 11-14 stand rejected under 35 U.S.C. 103 (a) as being unpatentable over *Kobayashi et al.* (US 3,875,660) in view of *Rall* (U.S. 4,856,797), and claims 15-21 stand rejected under 35 U.S.C. 103 (a) as being unpatentable over *Kobayashi et al.* (US 3,875,660) and *Terry* (U.S. 2,898,564) and *Rall* (U.S. 4,856,797).

The cited prior art reference U.S. 4,856,797 to *Rall* has nothing to do with manufacturing magnetic cores from laminations. This prior art reference describes clamping tools with which workpieces are clamped in machine tools. A person skilled in the art would not consider such clamping devices for solving the problem related to magnetic cores produced by joining laminations. The joining tool 11 according to the

invention has the task of precisely and simply aligning multiple stacked laminations within a cavity surrounding the stacked laminations completely - this cannot be performed by a simple clamping tool that is designed to hold a solid piece of material and not a stack of sheets or laminations.

Moreover, the laminations 2 after having been joined to a solid core 3 are plastically deformed in the area of their longitudinal edges as described in claims 16 and 17, respectively, and illustrated in Figs. 3 and 4 of the present application. This plastic deformation has the effect that the peripheral surface of the solid core 3 has substantially a cylindrical shape even though the massive or solid core is comprised of rectangular laminations 2. Such method steps are not disclosed or suggested in U.S. 4,856,797.

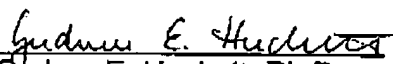
CONCLUSION

In view of the foregoing, it is submitted that this application is now in condition for allowance and such allowance is respectfully solicited.

Should the Examiner have any further objections or suggestions, the undersigned would appreciate a phone call from the examiner to discuss appropriate amendments to place the application into condition for allowance.

Authorization is herewith given to charge any fees or any shortages in any fees required during prosecution of this application and not paid by other means to Patent and Trademark Office deposit account 50-1199.

Respectfully submitted on March 3, 2003,


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Encl.: - amended claims 1, 15, 17 (clean copies and marked-up version - 2 sheets);
- time extension petition (1 sheet)

MARKED-UP CLAIM VERSION TO SHOW CHANGES MADE

1. (Amended) A method for manufacturing a solid core of laminations, the method comprising the steps of:

cutting a sheet metal web in a longitudinal direction of the sheet metal web to produce at least two sheet metal strips of a width matching a width of laminations to be produced from the sheet metal strips to eliminate sheet metal waste of the sheet metal web;

separating the sheet metal strips in a direction transverse to the longitudinal direction of the sheet metal strips to form laminations;

joining the laminations to form a solid core.

15. (Amended) ~~The A method according to claim 1, for manufacturing a solid core of laminations, the method comprising the steps of:~~

joining laminations; and

~~further comprising the step of deburring the laminations after the step of joining.~~

17. (Amended) ~~The A method according to claim 1, for manufacturing a solid core of laminations, the method comprising the steps of:~~

joining cut laminations having longitudinal edges to a solid core; and

~~further comprising the step of plastically deforming the longitudinal edges of the laminations of the solid core after the step of joining to form deformed areas.~~